

### **ESD Grounding Standards**

Public Safety Dispatch (PSAPs), Call Centers, Telecom Applications & FAA Flight Towers

### **Motorola R56**

Public Safety and Telecommunications standards and guidelines for the installation of equipment, infrastructure, and facilities for communications sites. Appendix C: Protecting against electrostatic discharge in equipment rooms and dispatch centers.

### C.3.3 Flooring

Carpeting or floor tiles within an equipment room or dispatch center, including raised flooring, should have a resistance to ground measurement of between 10<sup>6</sup> and 10<sup>10</sup> ohms when measured using the test method of ANSI/ESD STM7.1-2001 or later.

This commercial standard is used for network-operated dispatch operations, such as 9-1-1 call centers.

### ATIS-0600321,2015

This telecommunications industry standard covers new installations of network operator-type equipment positions in which personnel are required to access a computer terminal keyboard while continually wearing a headset.

Network Operator Dispatch Call Centers See: http://standards.globalspec.com/ std/9920406/atis-0600321

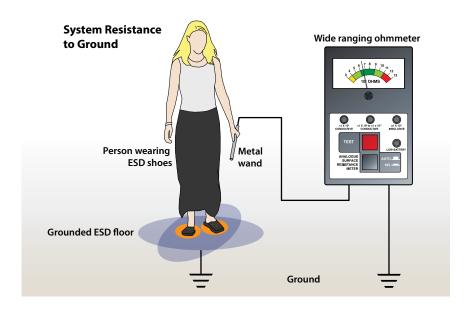
## **Section 4: Measures for Controlling Electrostatic Discharge: 4.2 Flooring**

Any carpeting or floor tiles should have a resistance to ground between 10<sup>6</sup> and 10<sup>10</sup> ohms when measured using the method of ESD -S7.1.

### FAA-STD-019f

# 110 $\epsilon$ 5.8.9 Electrostatic Discharge (ESD) Control Flooring and Floor Coverings

ESD control floors and floor coverings shall have a point-to-point resistance and a surface-to-ground resistance of greater than  $1.0\times10^6$  ohms and less than  $1.0\times10^9$  ohms (ANSI/ESD STM7.1).





### **ESD Grounding Standards**

Electronics Manufacturing & Handling Applications: Grounding & Charge Generation

### **ANSI/ESD S20.20 – 2021**

ESD Association Standard for the Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment.

### **ANSI/ESD STM7.1 – 2020**

Resistive Characterization of Flooring Materials in Environmentally Protected Areas (EPA).

Point to Point:  $< 1.0 \times 10^9$  ohms Point to Groundable Point:  $< 1.0 \times 10^9$  ohms

# ANSI/ESD STM97.1 (Resistance)

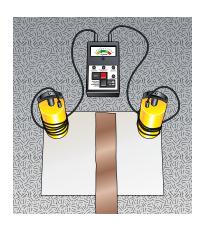
Resistance of Footwear/Flooring System < 1.0 × 10<sup>9</sup> ohms

# ANSI/ESD STM97.2 (Charge Generation)

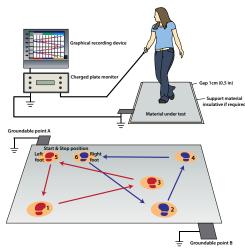
Floor Materials and Footwear Voltage Measurement in Combination with a Person.

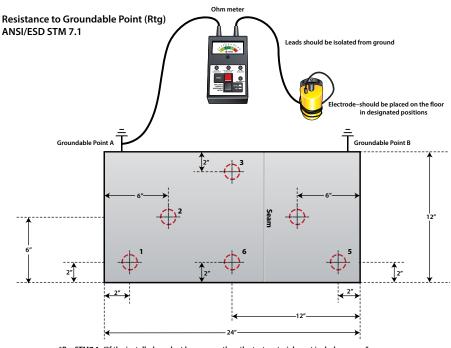
< 100 volts Peak

#### ANSI STM 7.1 Resistance Test



#### ANSI/ESD STM 97.2 Measurement of Voltage on a Person While Walking on a Floor





\*Per STM7.1: "If the installed product has seams, then the test material must include a seam."